

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on Page 27, line 28- Page 28, line 16, with the following:

As described below, one aspect of the invention pertains to isolated transcriptional nucleic acids selected from the group consisting of a nucleic acid having SEQ ID NO: 1, a ~~nucleic acid having ATCC Deposit No. _____~~, functional fragments thereof, Csp basic promoters, Csp regulatory elements, equivalents to any of these nucleic acids, and complements to any of these nucleic acids. The invention also pertains to nucleic acids capable of hybridizing to the complement of the nucleic acid sequence shown in SEQ ID NO: 1 ~~or to the complement of nucleic acid having ATCC Deposit No. _____~~. Also within the scope of the invention are nucleic acids which are homologous, e.g., 80% homologous to any of the above-recited nucleic acids and in a preferred embodiment, the nucleic acid sequence is at least 85%, 90% or 98-99% identical to any of the above recited nucleic acid molecules. Accordingly, the invention provides nucleic acids which are capable of functioning as a promoter and nucleic acids which are capable of functioning as regulatory elements. A "functional" fragment of a transcriptional nucleic acid as used herein is a nucleic acid fragment capable of modulating transcription of a gene operably linked to the fragment. Thus, a "functional fragment" of a transcriptional nucleic acid is intended to include nucleic acids capable of functioning as a promoter or as a regulatory element in appropriate conditions. The term equivalent of a nucleic acid is understood to include nucleic acids which differ by one or more nucleotide substitutions, additions or deletions from the nucleic acid and which has a similar activity as the transcription nucleic acid of SEQ ID No:1.

Please replace the paragraph on page 29, lines 6-25, with the following:

Accordingly, a preferred embodiment of the invention encompasses isolated nucleic acid molecules having a nucleotide sequence corresponding to at least a portion of the nucleic acid ~~having ATCC Deposit No. _____~~ of SEQ ID NO:1. In an even more preferred embodiment of the invention, the isolated nucleic acid comprises a nucleotide sequence corresponding to a functional portion or fragment of the nucleic acid ~~having ATCC Deposit No. _____~~ of SEQ ID NO:1, such that upon operably linking such a nucleic acid fragment to a second nucleic acid capable of being transcribed, the second nucleic acid can be transcribed. The functional portion of the nucleic acid,

which can have the activity of a promoter or a regulatory element, can be a portion of the nucleic acid which provides tissue specific expression. A preferred portion of the nucleic acid, such as those represented in SEQ ID No: 1 provides tissue specific expression substantially similar to the tissue distribution of Csp. Accordingly, a preferred portion of a nucleic acid having SEQ ID NO: 1 ~~or having ATCC Deposit No.~~ is a portion which modulates transcription preferentially in the brain and heart. However, portions of a nucleic acid which modulate transcription in only some of these tissues, or tissues other than the brain or heart are also within the scope of the invention. In fact, it is likely that tissue specificity is determined by several regulatory elements in the Csp promoter. Accordingly, a portion of the promoter may modulate transcription only in certain tissues. Similarly, portions of the nucleic acid having ~~ATCC Deposit No.~~ or SEQ ID NO: 1, which constitutively enhance or suppress transcription are also within the scope of the invention. Additional preferred portions of an Csp promoter include those which contain an inducible element.

Please replace the paragraph on page 29, line 30- page 30, line 7, with the following:

Other preferred nucleic acids of the invention are nucleic acids corresponding to one or more discrete regulatory elements, such as enhancers and silencers. Particularly preferred nucleic acids contained in nucleic acid having ~~ATCC Deposit No.~~ SEQ ID NO: 1. Accordingly, isolated nucleic acids of the invention also encompass those which do not contain a basic promoter. As set forth above, nucleic acids comprising one or more regulatory elements can provide tissue specific expression, including tissue specific expression other than that of the “natural” Csp gene, and/or can provide constitutive enhancement or suppression of transcription, or inducible enhancement or suppression of transcription.

Please replace the paragraph on page 32, lines 23-31, with the following:

Also within the scope of the invention are nucleic acids comprising an Csp promoter or regulatory element, e.g, having a nucleotide sequence of SEQ ID NO: 1, operably linked to a nucleic acid to be transcribed. The Csp promoter or regulatory element can be, e.g., ~~any of the above-described fragments of the nucleic acid having ATCC Deposit No.~~ _____, any nucleic

fragments having a sequence from SEQ ID No: 1, or modified form thereof. The Csp promoter can also be a combination of several fragments or regulatory elements having a sequence from SEQ ID NO: 1 or modified form thereof, as well as multimers of one or more of these fragments or regulatory elements or modified form thereof. The promoter can also contain regulatory elements derived from other genes.

Please replace the paragraph on page 134, lines 12-20, with the following:

Mouse monoclonal antibodies have been generated primarily against csp2 and include hybridoma clones and designated 9A11, 25D6, 11E1, 16G5 and 3F4A ~~ATCC Deposit No. _____~~. However, 3F4A recognizes both csp1 and csp2 as shown in Fig. 3 by immunofluorescence. BHK cells were transfected with myc-tagged csp1 or csp2 cDNA containing a nuclear localization signal at the amino terminus to allow nuclear expression of csp1 and csp2 and thus quick visualization of antibody reactivity. 3F4A was biotinylated and shown to recognize csp2 (Fig. 23, top row) as verified by co-staining with myc pAb. Biotinylated-3F4A also recognizes csp1, although much more weakly than csp2 as seen in Fig. 23, bottom row.

Please delete the following paragraph on page 152, lines 15-18.

Deposit of Microorganisms

~~_____ were deposited with the American Type Culture Collection Rockville, MD, on _____, under the terms of the Budapest Treaty and have been assigned accession numbers _____.~~